APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
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EXAMINER	
KENDALL, C	

ART UNIT	PAPER NUMBER
2122	

DATE MAILED: 08/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

	Application No.	Applicant(s)
Office Action Summary	09/262,743	NATORI ET AL.
	Examiner	Art Unit	
	Chuck O Kendall	2122	

-- *Th MAILING DATE of this communication appears on the cov r sh et with the correspondenc addr ss --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _20 June 2001_ .

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-14_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _4_ .

18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: .

DETAILED ACTION

RESPONSE TO AMENDMENT

1. This Office Action is the response to the communication received on *June 20, 2001*
Amendment under 37 CFR § 1.111.Reconsideration of the instant application is requested by
applicants. All such supporting documentation has been placed of record in the file.
Claims 1-14 are pending in this application.

Information Disclosure Statement

Per Arguments, submitted by applicant 6/20/01, the IDS filed on 6/4/99 has been fully considered.

2.   *Response to Arguments*

Regarding rejection of the claims 1-14 under 35 U.S.C. § 102(a):

Examiner has evaluated applicant's arguments of June 20th correspondence which has
been fully considered is not persuasive to overcome the previous rejection aforementioned, 35
U.S.C. § *102(a)* per, pages 2-6 with previous cited references *Lau USPN 5,987,247.* Therefore,
35 U.S.C. 102(a), rejection stands.

Claim 1

(Amended) A method for constructing a business application system by using a framework
described by an object-oriented language, the method comprising the steps of:

preparing an abstract class group including (i) a system core class group, which has
abstractly defined a basic structure and behavior of a business application system, and (ii) a
screen system class group, a report system class group and a business logic system class group,
which respectively inherit said system core class group; (col.9,line 5-55)

inheriting said screen system class group, said report system class group and said
business logic system class group of said abstract class group to prepare a screen system
functional group, a report system functional group and a business logic system functional group;
(col 9, line 5-55)

inheriting said system core class group of said abstract class group to prepare a system core functional group; and (col.9, line 5-55)

integrating said screen system functional group, said report system functional group, said business logic system functional group and said system core functional group. (col.9,line 5-55)

Claim 2

(Amended) The method for constructing a business application system as set forth in claim 1, further comprising the step of preparing a common component group including a plurality of common components commonly for use in said business application system, each of said common components having an interface with said abstract class group. (Lau USPN 5,987,247,fig2-4, col. 1-6line 1-65).

Claim 3

(Amended) The method for constructing a business application system as set forth in claim 1, wherein each of said system core class group, said screen system class group, said report system class group and said business logic system class group includes a plurality of abstract classes having a hierarchical structure based on at least one inheritance relationship. (Lau USPN 5, 987, 2-17, fig 2-4, col 1-6 line 1-65)

Claim 4

(Amended) The method for constructing a business application system as set forth in claim 1, wherein each of abstract classes included in each of said system core class group, said screen system class group, said report system class group and said business logic system class group includes an abstract method and a concrete method. (Lau USPN 5, 987, 247 fig 2-4, col. 1-6 line 1-65)

Claim 7

(Amended) A computer-readable storage medium having stored a framework for a business application system, which has been described by an object-oriented language, said framework including:

an abstract class group which has abstractly defined a structure and behavior of a business application system, said abstract class group including (i) a system core class group, which has abstractly defined a basic structure and behavior of said business application system, and

(ii) a screen system class group, a report system class group and a business logic system class group, which respectively inherit said system core class group. (Lau USPN 5, 987, 247fig 2-4,col 1-10 line1-65)

Claim 8

(Amended) The computer-readable storage medium having stored a framework for a business application system as set forth in claim 7, further including a common component group including a plurality of common components commonly for use in said business application system, each of said common components having an interface with said abstract class group. (Lau USPN 5,987,247fig 2-4,col.1-10 line 1-65)

Claim 12

(Amended) The computer-readable storage medium as set forth in claim 11, wherein said system core class group has defined the calling of a common component commonly for use in said business application system. (Lazy USPN 5, 987, 247,fig 2-4, col.1-10 line 1-65)

Claim 14

(Amended) The computer-readable storage medium as set forth in claim 13, wherein said system core class group has defined the calling of a common component commonly for use in said business application system. (Lau USPN 5,987,247,fig2-4, col.1-12 line 1-65)

3.   ***Examiners Arguments.***

As per applicants arguments the following limitations are notoriously old and

well known in Business Frameworks and Object Oriented art:

I.   In claims 1 and 7, an object-oriented framework comprising of an abstract class

hierarchy with a system core class group defining the basic structure and behavior of a

business application system, a screen system class, a report system class and a business

logic system class which inherits and integrates class functionality;

Lau does teach an abstract system, including a core system class which is inherent in

Framework as per definition cited below, and in Examiners Argument.

> "the core function is the part of the framework mechanism that is not subject to modification by
>
> the framework user. "Lau, col.2 line 23.

> "A framework is customized to a particular application by creating
>
> application specific subclasses of **abstract classes** from the framework. The
>
> framework defines the overall structure, its partitioning into classes and
>
> objects, the key responsibilities of the classes and objects, the relationships
>
> between the classes and objects, and the control of the application. The
>
> framework also captures the design decisions that are common to its application
>
> domain. " Lau col.2 line 35-45.

Lau also teaches a business logic system/design, which integrates and interfaces with a

screen system which is abstractly defined by user interfaces and also Graph views. [col.9 line 5-

55] and *also see* col.2.

Prior Art also teaches reports, using a DDL (Data Definition Language) which is an

industry standard language used in AD HOC reporting. [col.17 line 5].

Lau also shows extensible classes which are customizable and are abstractly defined. Lau

col.2 line 35-45.

Lau shows a class hierarchy which includes abstract classes, concrete classes, core classes and extensible class within a Business/Object Oriented framework. Including logic as discussed above.

The use of Abstract/(Parent or Base) classes, Core classes and extensible Classes in Business logic/Methodology and Object Oriented frameworks are very common in the art and have been for years. James Martin, (Principles of Object Oriented Analysis and Design © 1993), shows a Business framework constructed using abstract classes and concrete classes, including logic, screen systems and reports, [page 61,231,263] which applicant has deemed as his invention.

James Martin, also shows a structured class hierarchy and systems integration which are also key limitations in applicants disclosure.

Also seen in Robert Orfali's text hereinafter Orfali [Client/Server Programming with Java and Corba, © 1996], are implementations of applicants limitations with use in Business/Object Oriented framework as discussed on Pages. [404,653,830,851-852,855].

II.   Also shown by Lau, first claim of Arguments, claims 2, 8, 12, and 14. Construction of a business application system that provides interface between Abstract/Base/Parent class and Concrete Class components within the systems hierarchy.

Martin also shows this relationship through out his text which abstractly defines structures within Object Oriented and Business Frameworks. Use of Abstract classes in Frameworks are also grossly old and Well known in the Object Oriented art.

III.   In Claims 3 and 4. Construction of a business applications system comprising an abstract class group and a concrete class group system comprising a systems core class group, a screen system class, a report system class and a business logic system class which inherits and integrates class functionality.

Examiner has defined terms which applicant has used in limitations to clarify meaning and teach limitations in view of prior art.

IV. As per applicants argument in Claims 11.Systems core class group having defined the manipulation of data and a plurality of subclasses inheriting said system core class group.

> "FIG. 5, displays a list of the methods, and the **"getter"** and the **"setter"** for each attribute of the interface that was selected by the developer from the graph view. "Getter" refers to the **"get"** function associated with an attribute. "Setter" refers to the "set" function associated with an attribute. In addition, the framework building system generates the framework methods required to override and implement the framework due to sub classing of objects." [Lau, col.11 line 35-45].

As quoted from prior art above, Lau shows data manipulation, using get and set methods, which are inherent in addition to being old and well known in programming.

> "In particular, this programming model which is referred to as "BOSS" or "CB Series" is based on programming by framework completion which enables a server class to extend one of the base classes and **inherit** the implementation from the **framework**............" [Lau, col.9].

And also

> "As part of defining relationships between classes, the designer may also introduce **inheritance** into the relationships. The introduction of **inheritance** into the relationships enables the identification of commonality between classes. In addition, the developer may also introduce new classes, and may add attributes and method to the design"[col.9 line 25-35].

V. As per applicants argument in Claim 13.A system Core Class group having defined the transmission and receiving of a request between functions and a plurality of subclasses inheriting said systems core class group.

This limitation is taught by the prior art and is also old and well known and inherent in

Frameworks and Object Oriented technology and also taught by Lau,Martin and Orfali's text.

Object request/messaging [Orfali,138-139].

"In an object oriented computing environment, the data is processed by requesting an object to

perform one of its methods by sending the object a "message." The receiving object responds to the

message by choosing the method that implements the message name, executing this method on the

named instance and returning control to the calling high-level routine along with the results of the

method."[Lau, col.1 line 57].

> "A **framework** is customized to a particular application by creating
> application specific subclasses of abstract classes from the framework. The
> framework defines the overall structure, its partitioning into classes and
> objects, the key responsibilities of the classes and objects, the relationships
> between the classes and objects, and the control of the application. The
> framework also captures the design decisions that are common to its application
> domain. " Lau col.2 line 35-45.

Examiner has provided definition to applicant of these old and well known terms for clarification

purposes.

Concrete Classes: Classes that spawn from Abstract classes and define objects and methods.

Core Classes/functions: Default classes and functions in a Framework, which are not subject to

modification or customization by the user [Lau, col.2 line 23].

Framework: In Object-oriented programming, a reusable basic design structure, consisting of

abstract classes and concrete classes, that assist in building applications. [Microsoft Press, ©

1997].

These terms which applicant has incorporated in his disclosure are inherent in Object Oriented

technology and Business Frameworks.

Martin shows extensible and Core classes in his text and also **Abstract** and **Concrete** Classes,

which are the primary building blocks of any Object Oriented Business Framework.

Examiner would also like to point out to Applicant that Robert Orfali's text along with

The Sanfrancisco Project, Publication being cited, also covers Object Oriented Frameworks,

Messaging, Abstract classes, Concrete classes, reports, interfacing, inheritance, Core system classes and hierarchy class structures within Business applications.

Martin [Page 61 (Business Framework, business logic and systems integration)
Page 263,231 (Screen system & Reports)].

4. *This action is made Final.*

Applicant's arguments are not persuasive to overcome 35 U.S.C. § 102(a) as discussed per, prior art with previous cited reference **Lau USPN 5,987,247.**

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this

final action. see MPEP § 706.07 (a).

5.   **Summary**

In Summary, the Limitations of the Applicants Claimed Invention are found in a plurality of prior art.
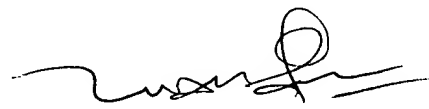
Correspondence Information

Any inquires concerning this communication or earlier communications from the examiner should be directed to *Chuck O. Kendall* who may be reached via telephone at (703) 308-6608. The examiner can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Mark R. Powell*, may be reached at *(703) 305-9703.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is *(703) 305-3900.*

Chuck O. Kendall

Software Engineer Patent Examiner
United States Department of Commerce

TUAN Q. DAM
PRIMARY EXAMINER